

## FCC Class A Notice

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Note: This unit was tested with shielded cables on the peripheral devices. Shielded cables must be used with the unit to ensure compliance.

## User's Guide



### VSS 100

#### Composite Video Sync Separator

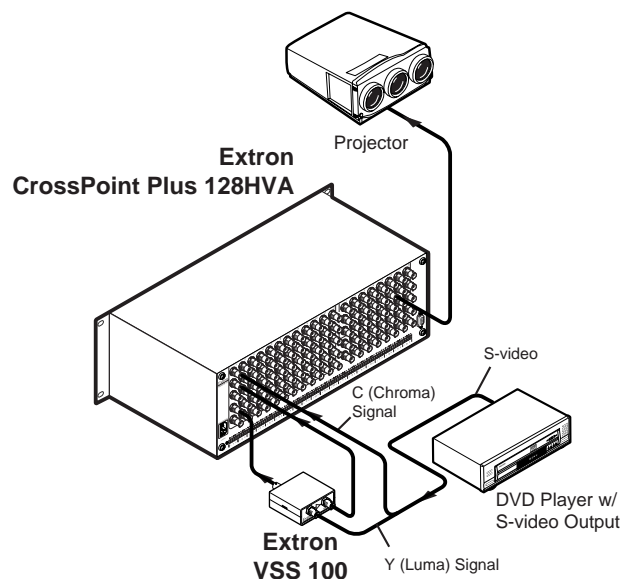
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Printed in the USA  
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# Installation

The Extron VSS 100 composite video sync separator extracts the sync signal from an RGB, component video, S-video, or composite video input. The sync separator outputs the composite sync signal, at TTL levels, on a separate signal line. The VSS 100 loops the input video through and outputs it unchanged.

With the VSS 100, systems that use video formats with embedded sync in the video stream can still take advantage of features that depend on a separate sync input, such as the DSVP™ (Digital Sync Validation Processing™) feature of Extron CrossPoint Plus matrix switchers.

The VSS 100 accepts input video on a female BNC connector. The video input should be the signal that has the sync signal embedded on it, such as the luminance (Y) signal for S-video.



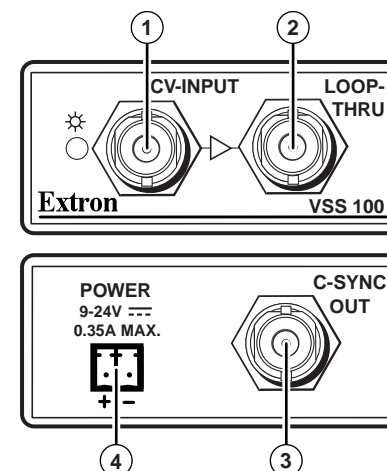
**Figure 1 — Typical VSS 100 application**

The VSS 100 loops the video input through and outputs it on a separate female BNC connector. The sync separator outputs the separated composite sync, at TTL levels, on a third female BNC connector.

The VSS 100 easily fits behind a rack mounted Extron switcher, and includes a 6" male-to-male BNC cable for easy integration into a video system. The sync separator has an external, worldwide power supply.

## Connections

The CV Input and Loop-thru connectors are on the front of the VSS 100. The Composite Sync Out and power connectors are on the back (figure 2).



**Figure 2 — VSS 100 connectors**

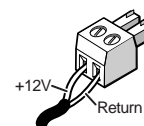
- 1 **Composite video (CV) Input connector** — Connect composite video (or the video input that has composite sync embedded in it) from the video source to this female BNC connector.

For RGB video, component video, or S-video, connect the following video signal:

- **RGB video:** Connect the green video signal
- **Component video:** Connect the luminance (Y) video signal
- **S-video:** Connect the luminance (Y) video signal

- 2 **Loop-Thru connector** — Connect the included 6" male-to-male cable to this female BNC connector. Connect the other end of the cable to the desired destination (such as the green video input of a CrossPoint Plus matrix switcher for RGB video).
- 3 **Composite Sync Out connector** — Connect the TTL-level composite sync signal output on this female BNC connector to the device that needs the sync signal (such as the horizontal sync input of a CrossPoint Plus matrix switcher).

- 4 **Power connector** — Plug the external 12VDC power supply into this captive screw connector. Wire the connector as shown at left. Plug the other end of the power supply into a standard AC outlet.



# Indicator and Operation

## Indicator and Operation

- 5 **Power LED** — This front panel LED (figure 3) lights to indicate that the VSS 100 is receiving power.

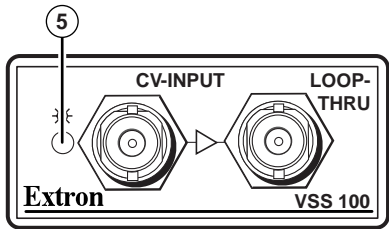


Figure 3 — VSS 100 Power indicator

When the VSS 100 and all other equipment in the system are powered up, the system is fully operational. If problems are encountered, ensure that all cables are routed and connected properly. If problems persist, call the Extron S<sup>3</sup> Sales & Technical Support Hotline.

## Specifications

### Video

Gain .....	Unity
Bandwidth .....	6 MHz (-3dB)

### Video input

Number/signal type .....	1 NTSC, PAL SECAM composite video or RGsB
Connectors .....	1 BNC female
Minimum/maximum level(s) ....	1 analog — 0.4V to 1.0V p-p with no offset at unity gain
Impedance .....	75 ohms
Horizontal frequency .....	15.6 kHz to 17.75 kHz
Vertical frequency .....	50 Hz to 60 Hz

### Video output

Number/signal type .....	1 loop through - composite video or RGsB
Connectors .....	1 BNC female
Minimum/maximum levels .....	Analog — 0.4V to 1.0V p-p
Impedance .....	75 ohms

### Sync

Output type .....	Composite sync
Connectors .....	1 BNC female

# Specifications, cont'd

Standards .....	NTSC 3.58, NTSC 4.43, PAL, SECAM
Input level .....	0.3V p-p
Output level .....	5.0V p-p
Input impedance .....	75 ohms
Output impedance .....	75 ohms
Polarity .....	Negative

## General

Power .....	100VAC to 240VAC, 50/60 Hz, 5 watts, external, auto-switchable; to 12VDC, 1.0 A power supply.
Temperature/humidity .....	Storage -40° to +158°F (-40° to +70°C) / 10% to 90%, non-condensing Operating +32° to +122°F (0° to +50°C) / 10% to 90%, non-condensing
Rack mount .....	No
Enclosure type .....	Plastic
Enclosure dimensions .....	1.0" H x 2.4" W x 2.3" D 2.5 cm H x 6.1 cm W x 5.8 cm D
Product weight .....	0.5 lbs (0.2kg)
Shipping weight .....	2 lbs (0.9kg)
Vibration .....	ISTA/NSTA 1A in carton (International Safe Transit Association)
Listings .....	UL, CUL
Compliances .....	CE, FCC Class A
MTBF .....	30,000 hours
Warranty .....	3 years parts and labor

**NOTE** Specifications are subject to change without notice.

## Optional Accessories

• Extron S-video cable, up to 100' (in various lengths)	26-316-xx
• Extron BNC-4 Mini HR cable, (in various lengths)	26-210-xx
• Extron Superflex SHR 1 cable (in various lengths)	26-383-xx
• Extron Superflex SHR 4 cable (in various lengths)	26-368-xx
• Extron Plenum BNC-5 Mini HR cable (in various lengths)	26-378-xx
• Extron S-video male to 2 BNC adapter, female, 8"	26-353-02
• Extron S-video female to 2 BNC, male (in various lengths)	26-353-xx
• Extron BNC male to RCA female adapter	10-264-01